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U.S. DEPARTMENT OF AGRICULTURE

WATER SUPPLY OUTLOOK FOR MONTANA

JAN 22 '74

PERMANENT SECTION
CURRENT SERIAL RECORDS



U. S. DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Collaborating with

MONTANA AGRICULTURAL EXPERIMENT STATION

Data included in this report were obtained by the agencies named above in cooperation with Federal, State and private organizations listed inside the back cover of this report.

AS OF
JAN. 1, 1974

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

*Cover Photo: Snow Surveyors near Ship Creek,
Alaska snow course.*

SCS PHOTO A-272-11

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, Western Regional Technical Service Center, Room 209, 511 N. W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	204 E. 5th. Ave., Room 217, Anchorage, Alaska 99501
Arizona	6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1218 S. W. Washington St., Portland, Oregon 97205
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82601

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia



WATER SUPPLY OUTLOOK FOR MONTANA

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued by

KENNETH E. GRANT

ADMINISTRATOR
SOIL CONSERVATION SERVICE
WASHINGTON, D.C.

=====

Released by

A. B. LINFORD

STATE CONSERVATIONIST
SOIL CONSERVATION SERVICE
Bozeman, Montana

In Cooperation with

J. A. ASLESON

DIRECTOR
Montana Agricultural Experiment Station

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Bozeman, Montana 59715

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CHAPTER

THE first part of the book is devoted to a general survey of the history of the subject, and to a discussion of the principles which should govern the selection of the material to be included in a history of the subject. The second part of the book is devoted to a detailed account of the history of the subject, and to a discussion of the principles which should govern the selection of the material to be included in a history of the subject. The third part of the book is devoted to a detailed account of the history of the subject, and to a discussion of the principles which should govern the selection of the material to be included in a history of the subject.

MONTANA WATER SUPPLY OUTLOOK

January 1, 1974

* * * * *

* The mountain snowpack is above average west of the Continental Divide and generally near average over the remainder of the mountainous areas east of the Continental Divide. Reports of the average and/or above average snowpacks are welcome to the many water users in northern and central portions of Montana who experienced one of the lowest runoffs in recent years during last spring and summer.

* Mountain soils beneath the snowpack contain near average moisture in nearly all areas. Exceptions are headwaters of the Beaverhead, Ruby and Gallatin River drainages, portions of the Madison River drainage in southwestern Montana, and headwaters of the Smith, Belt, Judith and Musselshell River drainages in central Montana. Soil moisture is above average in these areas.

* Streamflow next spring and summer will be average or above average in nearly all areas, if present precipitation trends continue.

* * * * *

COLUMBIA RIVER DRAINAGE

Snow - The early season snowpack is about 30 percent above average in the Bitterroot, Flathead and lower Clark Fork drainages. Snowpack in the upper Clark Fork, including the Blackfoot drainage, is only slightly above average. January measurements are not made in the Kootenai River drainage. Moisture in soils beneath the snowpack is about average in all areas.

Streamflow - Volume streamflow forecasts will be released after completion of March 1 snow surveys, when snowpack trends become better established.

THE HISTORY OF THE
CITY OF BOSTON

BY
JOHN B. BOWEN

1858

The history of the city of Boston is a subject of great interest and importance. It is a city of many centuries, and its history is a record of the growth and development of one of the most important cities in the world. The city has been the seat of many great events, and its history is a record of the progress of the human race.

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MISSOURI RIVER DRAINAGE

Snow - The mountain snowpack in the extreme headwaters of the Madison River drainage is well above average. The remaining areas in the southwest are above average with snowpack decreasing to near average in the northern three-fourths of the Missouri River drainage.

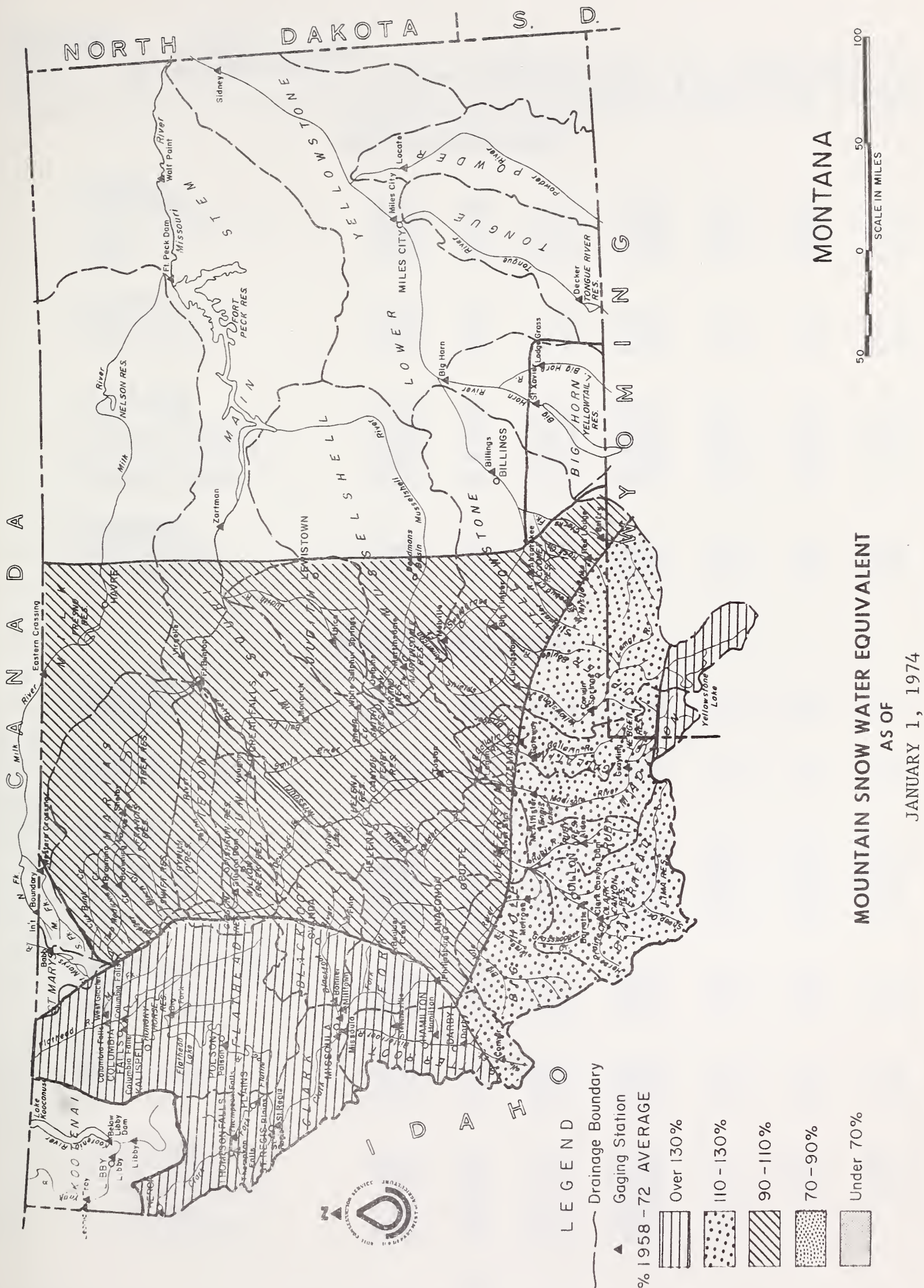
YELLOWSTONE RIVER DRAINAGE

Snow - Snowpack in the extreme headwaters of the Yellowstone River drainage is well above average, decreasing to near average farther downstream above Billings, Montana. Snow surveys are not scheduled in the Big Horn Mountains until February.

Moisture stored in the mountain soils beneath the snowpack is near average in the Crazy Mountains and along the Gallatin-Yellowstone divide. Elsewhere, moisture levels are generally below average.

SUMMARY of SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF:	
		Last Year	Average
<u>COLUMBIA RIVER DRAINAGE</u>			
Kootenai	-	-	-
Flathead	5	140	134
Upper Clark Fork	11	135	104
Lower Clark Fork	6	163	132
Bitterroot	6	144	133
<u>MISSOURI RIVER DRAINAGE</u>			
Jefferson	11	141	106
Madison	6	119	124
Gallatin	8	136	110
Missouri Main Stem	6	137	97
Judith-Musselshell	2	156	110
Marias-Teton-Sun	1	123	100
Milk (Headwaters)	-	-	-
<u>YELLOWSTONE RIVER DRAINAGE</u>			
Yellowstone	14	115	114
Little Big Horn	-	-	-
-3-			



1000

1000

1000

SOIL MOISTURE NOVEMBER 1, 1973

DRAINAGE BASIN and/or STATION		Profile (Inches)		Date of Survey	Soil Moisture (Inches)		
Name	Elevation	Depth	Capacity		This Year	Last Year	Average †

COLUMBIA RIVER BASIN

Kootenai

Baree Trail	3800	48	7.5	11/01	6.1	5.0	5.7
Murphy Lake R. S.	3000	48	22.6	11/05	18.2	19.0	18.8
Raven	3050	48	23.0	11/01	13.1	13.5	17.2

Flathead

Desert Mountain	5600	54	8.4	11/01	6.9	5.5	6.4
Marias Pass	5250	54	6.5	10/29	3.3	5.5	4.5

Clark Fork

Black Pine	7100	48	10.0	10/31	8.1	8.0	7.8
Lubrecht Forest	4100	48	26.8	10/31	13.5	15.0	14.4
Seeley Lake R. S.	4030	48	11.9	11/05	3.8	4.3	4.5
Skalkaho Summit	7260	48	10.8	10/31	9.9	10.1	10.1

Bitterroot

Gibbons Pass	7100	48	7.1	10/27	3.9	3.0	5.0
Lolo Pass	5250	48	10.6	10/31	3.7	4.1	5.4

MISSOURI RIVER BASIN

Beaverhead

Lakeview	6700	48	15.3	11/01	14.3	16.5	7.7
----------	------	----	------	-------	------	------	-----

Madison

West Yellowstone	6700	48	6.5	11/01	3.0	2.9	2.8
------------------	------	----	-----	-------	-----	-----	-----

Gallatin

Bridger Bowl	7250	48	17.0	11/01	15.3	15.8	15.5
College Site No. 2	4856	54	17.7	11/02	12.0	12.6	10.8
Lick Creek	6860	48	18.8	11/01	13.2	17.8	17.8
Twenty-One Mile	7150	48	10.0	11/01	6.6	8.0	5.1

Missouri Main Stem

Kings Hill	7420	48	11.8	10/31	8.6	8.5	7.4
Stemple Pass	6350	48	5.9	10/31	4.1	3.6	4.0

Milk

Beaver Creek	3950	48	20.9	10/31	7.3	7.3	7.5
Rocky Boy	4700	36	10.1	10/31	6.3	6.6	7.8

Yellowstone

Battle Ridge	6020	48	17.6	11/01	9.7	14.4	12.1
Northeast Entrance	7350	48	9.4	11/01	5.5	8.4	6.8
PMC Dryland	3700	48	20.7	10/29	7.1	-	-
PMC Headquarters	3656	48	22.6	10/29	19.4	-	-

SOIL MOISTURE DECEMBER 1, 1973

DRAINAGE BASIN and/or STATION		Profile (Inches)		Date of Survey	Soil Moisture (Inches)		
Name	Elevation	Depth	Capacity		This Year	Last Year	Average †

COLUMBIA RIVER BASIN

Kootenai

Baree Trail	3800	48	7.5	12/04	6.6	5.8	6.1
Murphy Lake R. S.	3000	48	22.6	12/03	19.2	19.2	19.2
Raven	3050	48	23.0	12/04	15.8	14.0	18.6

Flathead

Desert Mountain	5600	54	8.4	11/26	7.6	-	-
Marias Pass	5250	54	6.5	11/26	5.2	4.6	4.8

Clark Fork

Black Pine	7100	48	10.0	11/30	8.1	7.1	7.9
Lubrecht Forest	4100	48	26.8	12/03	14.9	15.0	14.5
Seeley Lake R. S.	4030	48	11.9	12/04	7.2	4.4	5.4
Skalkaho Summit	7260	48	10.8	12/03	10.0	-	-

Bitterroot

Gibbons Pass	7100	48	7.1	11/29	5.1	2.9	4.8
Lolo Pass	5250	48	10.6	11/30	6.6	4.7	5.9

MISSOURI RIVER BASIN

Beaverhead

Lakeview	6700	48	15.3	11/30	17.5	16.5	8.5
----------	------	----	------	-------	------	------	-----

Madison

West Yellowstone	6700	48	6.5	12/01	3.0	2.6	2.7
------------------	------	----	-----	-------	-----	-----	-----

Gallatin

Bridger Bowl	7250	48	17.0	11/28	15.3	15.7	15.5
College Site No. 2	4856	54	17.7	11/30	16.0	15.3	12.4
Lick Creek	6860	48	18.8	11/28	15.6	14.9	16.6
Twenty-One Mile	7150	48	10.0	12/01	8.3	7.5	4.4

Missouri Main Stem

Kings Hill	7420	48	11.8	11/30	8.5	8.5	7.2
Stemple Pass	6350	48	5.9	11/29	5.0	3.2	4.0

Milk

Beaver Creek	3950	48	20.9	11/29	7.5	7.1	7.5
Rocky Boy	4700	36	10.1	11/29	7.6	6.5	7.5

Yellowstone

Battle Ridge	6020	48	17.6	11/26	12.1	11.7	12.9
Northeast Entrance	7350	48	9.4	11/30	5.8	8.1	6.8
PMC Dryland	3700	48	20.7	12/03	7.5	-	-
PMC Headquarters	3656	48	22.6	12/03	18.9	-	-

SOIL MOISTURE JANUARY 1, 1974

DRAINAGE BASIN and/or STATION		Profile (Inches)		Date of Survey	Soil Moisture (Inches)		
Name	Elevation	Depth	Capacity		This Year	Last Year	Average +

COLUMBIA RIVER BASIN

Kootenai

Baree Trail	3800	48	7.5	1/04	6.4	6.4	-
Murphy Lake R. S.	3000	48	22.6	1/02	19.7	19.5	19.4
Raven	3050	48	23.0	1/04	15.4	13.9	18.3

Flathead

Desert Mountain	5600	54	8.4	12/27	8.6	6.6	6.9
Marias Pass	5250	54	6.5	12/27	5.2	5.5	4.8

Clark Fork

Black Pine	7100	48	10.0	1/03	8.2	7.1	7.4
Lubrecht Forest	4100	48	26.8	1/02	15.1	15.0	13.4
Seeley Lake R. S.	4030	48	11.9	1/02	8.1	6.4	6.0
Skalkaho Summit	7260	48	10.8			9.8	-

Bitterroot

Gibbons Pass	7100	48	7.1	12/26	5.2	2.7	4.7
Lolo Pass	5250	48	10.6	12/28	6.2	5.0	5.9

MISSOURI RIVER BASIN

Beaverhead

Lakeview	6700	48	15.3	12/28	17.3	16.2	8.5
----------	------	----	------	-------	------	------	-----

Madison

West Yellowstone	6700	48	6.5	1/01	3.0	2.6	2.6
------------------	------	----	-----	------	-----	-----	-----

Gallatin

Bridger Bowl	7250	48	17.0	12/28	15.2	15.6	15.7
College Site No. 2	4856	54	17.7	12/28	16.1	15.3	12.6
Lick Creek	6860	48	18.8	1/02	15.1	14.7	16.1
Twenty-One Mile	7150	48	10.0	1/01	8.0	7.1	4.2

Missouri Main Stem

Kings Hill	7420	48	11.8	12/26	8.5	8.5	6.9
Stemple Pass	6350	48	5.9	12/27	4.9	3.5	3.9

Milk

Beaver Creek	3950	48	20.9	1/02	7.7	8.4	7.3
Rocky Boy	4700	36	10.1	1/02	8.7	6.5	6.6

Yellowstone

Battle Ridge	6020	48	17.6	12/28	13.9	11.4	12.7
Northeast Entrance	7350	48	9.4	1/01	5.8	7.9	6.4
PMC Dryland	3700	48	20.7	12/31	6.9	-	-

RESERVOIR STORAGE (Thousand Acre Feet) END OF MONTH

Basin or Stream	RESERVOIR	Usable Capacity	Usable Storage		
			This Year	Last Year	Average

COLUMBIA RIVER BASIN

Kootenai	Koocanusa	3,522.0	2,388.0	116.6	-
Flathead	Hungry Horse	3,428.0	2,604.0	2,641.0	2,766.0
	Flathead Lake	1,791.0	1,386.0	1,399.0	1,423.0
	Camas (4)	45.2	11.0	30.9	22.1
	Mission Valley (8)	100.3	34.9	29.3	31.4
Clark Fork	Georgetown Lake	31.0	21.8	28.9	27.9
	Lower Willow Creek	4.6		0.5	-
	Nevada Creek	12.6		3.0	-
	Noxon Rapids	334.6	295.4	323.4	325.5
Bitterroot	Como	34.9		5.2	8.0
	Painted Rocks	31.7	0.0	20.1	23.5

MISSOURI RIVER BASIN

Beaverhead	Clark Canyon	328.9	133.9	151.1	138.9
	Lima	84.0	49.3	41.0	31.2
Ruby	Ruby	38.8		16.8	20.0
Madison	Hebgen Lake	377.5	229.8	253.8	201.9
	Ennis Lake	41.0	36.1	24.0	36.7
Gallatin	Middle Creek	8.0	3.2	-	3.0
Missouri	Canyon Ferry	2,043.0	1,773.0	1,539.0	1,717.0
	Hauser & Helena	61.9	62.5	61.3	59.6
	Lake Helena	10.4	10.7	10.2	9.6
	Holter Lake	81.9	78.3	79.8	71.3
	Smith River	10.7	1.8	4.1	5.7
	Bair	7.0	0.8	3.3	4.0
	Martinsdale	23.1	4.8	9.0	7.6
	Deadman's Basin	72.2	29.8	50.0	41.2
	Fort Peck	19,410.0	15,720.0	17,160.0	13,450.0
Sun	Gibson	105.0	17.5	54.1	36.9
	Willow Creek	32.3	18.9	21.7	18.6
	Pishkun	32.0	3.8	18.3	17.7
Marias	Lower Two Medicine	16.6		-	-
	Four Horns	19.2		-	12.3
	Swift	30.0	8.6	15.4	14.1
	Lake Frances	112.0	34.2	94.4	78.1
	Tiber	1,347.0	509.8	505.6	579.1
Milk	Fresno	127.2	11.0	86.3	59.0
	Nelson	66.8	20.4	49.0	44.4
	Lake Sherburne	66.1	27.0	9.6	16.5
Yellowstone	Mystic Lake	20.8	15.1	12.0	14.1
	Tongue River	68.0		27.4	25.8
	Cooney	27.5		16.1	13.4
Big Horn	Big Horn Lake	1,356.0	962.5	952.8	880.8

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SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Elevation				Last Year	Average

COLUMBIA RIVER BASIN

FLATHEAD RIVER

Desert Mountain	5600	12/27	41	10.8	7.8	7.3
Hell Roaring Divide	5770	1/03	68	22.2	15.6	14.1
Holbrook	4530				2.5	4.3
Marias Pass	5250	1/03	28	7.4	6.0	7.4
Spotted Bear Mountain	7000				7.0	7.2
Twin Creeks	3580				3.5	5.7

CLARK FORK RIVER

Black Pine	7100	1/03	31	7.2	5.0	3.4
Black Pine Pillow	7100	1/03	SP	6.9	5.4	5.4
Combination	5600	1/03	22	4.8	1.4	2.6
Combination Pillow	5600	1/03	SP	4.0	2.3	-
Coyote Hill	4200	1/02	23	4.6	2.8	4.5
Heart Lake Trail	4800	1/03	46	11.7	3.8	8.7
Hoodoo Basin	6000	1/03	95	30.0	18.1	20.8
Hoodoo Basin Pillow	6000				17.5	19.1
Hoodoo Creek	5900	1/03	87	24.9	17.1	18.9
Lookout	5250	12/28	79	18.1	10.5	15.6
Lubrecht Flume	4680	12/29	18	3.5	1.8	3.1
Lubrecht Flume Pillow	4680	12/28	SP	2.3	-	2.5
Lubrecht Forest No. 3	5450	12/27	16	2.8	2.5	3.2
Lubrecht Forest No. 4	4650	12/27	11	1.8	0.9	1.8
Lubrecht Forest No. 6	4040	12/27	14	2.6	0.7	1.8
Lubrecht Hydroplot	4200	12/29	19	4.0	1.8	2.7
North Fork Elk Creek	6250	12/31	35	5.9	4.8	5.6
Peterson Meadows	7200	12/28	28	5.8	3.1	-
Storm Lake	7780	12/28	32	5.3	5.1	5.6
TV Mountain	6800	1/02	44	10.2	7.3	8.0

BITTERROOT RIVER

Gibbons Pass	7100	12/26	47	11.5	8.3	9.5
Lolo Pass	5230	12/27	62	15.2	10.6	11.7
Lost Horse	5940	12/27	68	17.3	11.2	12.0
Moose Creek	6200	12/28	46	9.7	7.2	5.7
Saddle Mountain	7940	12/26	48	11.9	8.3	10.3
Saddle Mountain Pillow	7940	12/26	SP	13.3	10.7	11.6
Savage Pass	6600	1/02	52	13.0	9.0	8.3
Twelvemile Creek	5600	12/27	53	12.6	6.1	7.2
Twelvemile Creek Pillow	5600	12/27	SP	11.7	4.9	6.2
Twin Lakes	6510	12/27	79	20.6	14.2	15.5
Twin Lakes Pillow	6400	12/27	SP	21.1	15.0	16.5

SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Elevation				Last Year	Average

MISSOURI RIVER BASIN

BEAVERHEAD RIVER

Camp Creek	6800	12/28	33	4.6	3.1	4.3
Lakeview Canyon	6930	12/28	29	6.7	2.7	5.4
Lakeview Ridge	7400	12/28	25	5.6	3.1	5.0
Sawtelle Mountain	8715	12/28	77	23.4	12.1	14.0

JEFFERSON RIVER

Pipestone Pass	7200	12/27	10	2.2	1.8	2.3
Rocker Peak	8000	12/27	30	7.0	5.4	6.8
Rocker Peak Pillow	8000	12/27	SP	6.6	5.1	7.2

MADISON RIVER

Big Springs	6500	12/28	51	10.6	7.6	7.8
Black Bear	7950	12/30	86	24.9	14.6	-
Black Bear Pillow	7950	12/30	SP	22.4	13.0	-
Hebgen Dam	6550	1/03	28	6.3	4.9	5.5
Island Park	6315	12/28	43	8.8	5.2	6.1
Madison Plateau	7750	12/28	48	13.4	8.1	8.7
Madison Plateau Pillow	7750	12/28	SP	14.0	7.9	9.4
Norris Basin	7500	12/31	25	4.9	5.8	4.6
Targhee Pass	7000	12/28	33	6.3	4.3	6.5
Valley View	6500	12/28	34	7.4	4.1	6.3
West Yellowstone	6700	1/03	27	6.6	4.7	4.6
West Yellowstone Pillow	6700	1/01	SP	6.0	3.2	3.8
Whiskey Creek	6800	12/28	47	11.0	7.1	-
Whiskey Creek Pillow	6800	12/28	SP	9.7	5.9	-

GALLATIN RIVER

Arch Falls	7350	1/02	26	5.8	4.8	5.5
Bridger Bowl	7250	12/28	57	12.0	8.9	12.0
Bridger Bowl Pillow	7250	12/28	SP	12.9	9.2	13.2
Carrot Basin	9000	1/04	68	21.7	17.6	17.0
Carrot Basin Pillow	9000	1/04	SP	17.1	-	10.9
Devils Slide	8100	1/02	43	11.3	7.8	10.1
Hood Meadow	6600	1/02	24	4.7	4.4	4.5
Lick Creek	6860	1/02	24	4.2	3.6	3.9
Lick Creek Pillow	6860	1/02	SP	4.0	3.6	4.0
Maynard Creek	6210	12/28	37	6.9	5.0	7.4
Maynard Creek Pillow	6210	12/28	SP	4.8	3.2	5.4
Shower Falls	8100	1/02	51	14.0	9.3	11.9
Shower Falls Pillow	8100	1/02	SP	11.7	10.2	11.5
Twenty-One Mile	7150	1/03	40	10.2	6.9	7.3

SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
					Last Year	Average

MISSOURI RIVER (Main Stem)

Big Coulee	5100	12/28	16	2.4	-	-
Chessman Reservoir	6200	12/27	8	1.0	0.7	1.3
Deadman Creek	6450	12/26	30	4.8	3.8	4.3
Deadman Creek Pillow	6450	12/26	SP	5.1	3.5	4.8
Frohner Meadows	6480	12/28	24	4.4	3.5	-
Frohner Meadows Pillow	6480	12/28	SP	4.2	3.3	-
Highwood Divide	5650	12/28	29	4.3	-	-
Highwood Station	4600	12/28	9	1.1	-	-
Ten Mile Lower	6600	12/27	20	2.6	2.6	3.1
Ten Mile Middle	6800	12/27	30	4.0	3.9	4.9
Ten Mile Upper	8000	12/27	29	5.5	3.7	6.0

SUN-TETON-MARIAS RIVERS

Badger Pass	6900				19.5	21.2
Blue Lake	5900				10.5	11.8

JUDITH RIVER

Spur Park	8100	12/26	45	10.0	5.7	9.2
Spur Park Pillow	8100	12/26	SP	10.8	6.8	10.2

MILK RIVER

Bear Paw Ski Area	5200	12/27	15	2.3	1.7	2.6
Boxelder Creek	5100	12/27	22	4.4	1.8	-
King Creek Saddle	4550	1/03	0	0.0	0.0	-
King Springs	4150	1/03	0	0.0	0.0	-
Kiwanis Camp	3720	12/27	0	0.0	-	-
Mission Mountain	5050	1/03	0	0.0	0.0	-
Rocky Boy	4700	12/27	12	2.1	0.9	1.8
Rocky Boy Pillow	4700	12/27	SP	3.1	0.6	1.4
Sucker Creek	3960	12/27	2	0.2	0.0	-
Taylor Road	4080	12/27	10	2.2	0.6	-

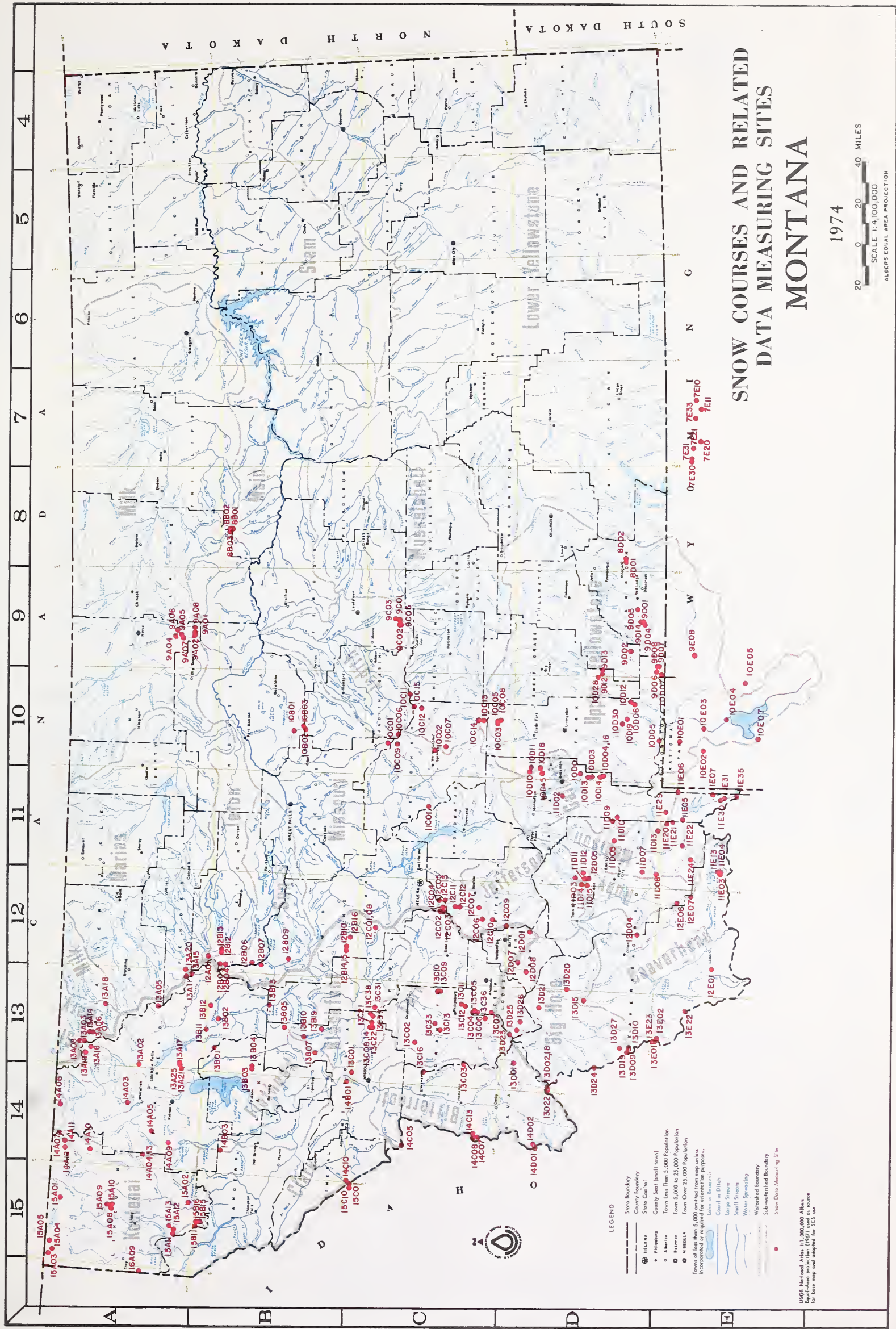
SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Elevation				Last Year	Average

UPPER YELLOWSTONE RIVER

Canyon	7750	12/31	36	7.1	10.1	6.1
Cooke Station	8150	12/27	34	7.6	7.7	-
East Entrance	7000	12/28	31	7.3	6.1	4.2
Fisher Creek	9100	12/27	61	18.1	16.6	14.4
Fisher Creek Pillow	9100	12/27	SP	17.8	15.3	14.8
Grizzly Peak	8400	1/02	31	7.0	9.3	8.5
Lake Camp	7850	12/31	25	4.7	3.2	3.5
Lupine Creek	7300	12/30	26	5.0	5.4	4.4
Northeast Entrance	7400	1/01	19	4.0	2.7	3.6
Northeast Entrance Pillow	7350	1/01	SP	4.0	4.3	4.0
Picket Pin Lower	6200	12/30	6	0.8	1.5	-
Picket Pin Middle	7250	12/30	15	3.6	3.0	-
Picket Pin Upper	8100	12/30	34	8.0	5.6	-
Sylvan Pass	7100	12/27	30	7.6	6.1	5.7
Thumb Divide	7900	12/29	43	11.1	6.4	9.2
White Mill	8700	12/27	46	12.4	12.2	-

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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INDEX to MONTANA SNOW COURSES and SOIL MOISTURE STATIONS

SHOW COURSES

COLUMBIA RIVER BASIN

[illegible]HUDSON BAY BASIN

daon Bay Divide	13A18	5800	24	34N	16W	1962	3
daon Lake No. 3	13A43	5600	1	35N	17W	1962	3, 4, 5
daon Park No. 9	13A04	4900	22	35N	16W	1955	3, 9
daon Hill No. 1	13A05	5700	27	35N	16W	1962	3, 9
daon Pass No. 6	13A06	5700	27	35N	16W	1962	3, 9
daon Pass No. 8	13A08	5800	36	36N	17W	1937	3, 9

MISSOURI RIVER BASIN

AYERHEAD RIVER	13010	7600	12	8S	16W	1948	3,4,5
body Dick	12054	7400	22	8S	7W	1963	2,3,4
for Creek							
							1
							11

Drainage Basin & Snow Course	Number	Elev., feet above seawater	Sec., meters	Top, meters	Range	Record Began	Measuring Dates 1/ 2/	Mean, By 2/ 3/
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Quad Creek Lake	13E22	8400	24	125	13W	1965	3,4,5	1
Old Horn Springs	13D15	7800	21	45	12W	1935	3,4,5	3
Gold Stone	13D09	8100	11	85	16W	1948	3,4,5	10
Johnson	13E04	6930	26	165	2W	1968	1,2,3,4,5	10
Shawnee River	13E05	7800	27	165	2W	1968	1,2,3,4,5	10
Lehigh Pass	13B01	7880	4	105	15W	1948	3,4	1
Lehigh Ridge	13E23	8100	4	105	15W	1948	3,4	1
Trail Creek	13E02	7090	15	105	15W	1968	3,4,5	1
White Pine Ridge	12E01	8830	18	145	9W	1948	3,4,5	1
TUBY RIVER								
Araratman	11D14	8850	5	45	3W	1967	3,4,5	1,12
Lower Meadow	11D08	8600	28	95	2W	1963	3,4,5	1,12
Upper Meadow	12E07	7900	14	125	4W	1963	3,4,5	1,12
Middle Mill Creek	12E05	7850	17	45	3W	1967	3,4,5	1,12
Swatch	12D05	8600	6	115	4W	1963	3,4,5	1,12
Smuggler Mine	12D05	6960	26	45	4W	1967	3,4,5	1
IG HOLE RIVER								
Bundance Lake	13D20	8800	7	35	11W	1963	3,4,5	1
Mill Mountain	12D08	7500	3	10W	1944	1,2,3,4,5	2	
Wolf Creek	13D26	6650	34	7W	1969	3,4,5	1	
Walker Lake	13D19	8600	4	85	16W	1976	3,4,5	1
Rocky Ridge	12D07	6600	18	2W	1969	3,4,5	2	
Golden	13D21	8280	11	15	13W	1963	3,4,5	1
Mill Lake Trail	13D27	7200	24	75	16W	1969	3,4,5	1
Mill Creek	13D20	8000	24	2W	15W	1969	3,4,5	1
Mill Creek	13D23	8250	3	15W	1967	4,5	1	
Ag-Ag-Melt Lake	13D24	8750	29	55	17W	1968	3,4,5	1
JEFFERSON RIVER								
Happy Meadow	12C07	7300	8	5W	1962	3,4	1	
Mountain	12C09	7700	13	3W	7W	1966	2,3,4,5	4
Peck Peak	12C06	6500	16	4W	6W	1967	2,3,4,5	4
Rock	12C01	7200	10	11W	1961	2,3,4	4	
Cenic Grounds	12C01	7200	10	11W	1961	1,2,3,4,5	1	
Pentagon Pass	12C11	8000	17	7W	5W	1968	1,2,3,4,5	1
Pecker Peak	12C12	6500	32	7W	5W	1968	1,2,3,4,5	1
San Calch								
ADISON RIVER								
Peck Bear	11E55	7950	27	15S	5E	1972	1,2,3,4,5,5,6	1,2
Mill Road	11E56	8000	21	8S	2W	1962	3,4,5	1,2
ur Mile	11D12	6900	5	11S	3E	1961	3,4,5	1
Bogen Dam	11E55	6500	22	11S	3E	1961	1,2,3,4,5	1
ck Creek	11D05	7500	13	6S	1E	1961	2,3,4,5	2
ko Creek	11E22	6100	27	11S	1E	1965	2,3,4,5	2
adison Plateau	11D11	7900	12	4S	3W	1965	3,4,5	1,2
Lower Meadow	11D03	7500	18	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2,3,4,5,5,6	1,2
adison Plateau	11D03	7500	23	14S	5E	1968	1,2	

MALLATIN RIVER								
Ch Falls	10014	7150	3	58	6E	1963	1,2,3,4,5,5,5,6	1
er Basin	11009	10815	9	66	5E	1963	1,2,3,4,5,5,5,6	1
Upper Bowl	10045	7250	25	18	6E	1965	1,2,3,4,5,5,5,6	1
rot Basin	11E29	9000	18	105	4E	1967	1,2,3,4,5,5,5,6	2
Lower Bowl	10004	8100	14	55	6E	1935	1,2,3,4,5,5,5,6	1
ed Meadow	10003	6800	22	48	6E	1935	1,2,3,4,5,5,5,6	1
ick Creek	10013	7600	22	65	9E	1964	1,2,3,4,5,5,5,6	1
tle Park	11010	7400	22	65	9E	1967	1,2,3,4,5,5,5,6	1
World Creek	10018	6210	19	18	7E	1967	1,2,3,4,5,5,5,6	1
ard Creek	10001	6700	24	35	6E	1966	1,2,3,4,5,5,5,6	1
Upper Fork	10016	8100	14	58	6E	1967	1,2,3,4,5,5,5,6	1
Lower Fork	10017	8100	26	95	8E	1967	1,2,3,4,5,5,5,6	1
nty-One Mile	11806	7150	1	113	5E	1934	1,2,3,4,5,5,5,6	3

SSOURI RIVER MAIN STEM								
Conlee	10803	5100	10	10N	9E	1934	1,2,3,4,5,5	1,12
lder Mountain	11001	7950	1	9N	3E	1963	1,2,3,4,5,5	3
aman Reservoir	12005	6200	2	8N	5W	1936	1,2,3,4,5,5,5,6	1
Peak Creek	10009	6450	23	12N	8E	1966	1,2,3,4,5,5,5,6	1
Peak Creek	10008	8000	10	8N	8E	1963	1,2,3,4,5,5,5,6	1
ener Meadows	12C13	7000	19	9N	5W	1971	1,2,3,4,5,5,5,6	1
Shopper	10002	7000	19	9N	9E	1938	1,2,3,4,5,5	1
wood Divide	10802	5650	16	10N	9E	1934	1,2,3,4,5,5	1,12
wood Station	10801	4600	20	20N	9E	1974	1,2,3,4,5,5,5,6	1,12
ge Mill	10001	7500	34	13N	8E	1934	3,4,5,5,5,6	3,5
ple Pass	12C01	6600	16	13N	7W	1934	1,2,3,4,5,5,5,6	3,5
Upper Fork	12C02	6600	12	8N	6W	1935	1,2,3,4,5,5,5,6	3,5
Upper Fork	12C03	6600	12	8N	6W	1935	1,2,3,4,5,5,5,6	3,5
Upper Fork	12C04	8000	19	8N	6W	1934	1,2,3,4,5,5,5,6	3
Upper Fork	12C05	8000	19	8N	6W	1934	1,2,3,4,5,5,5,6	3

4-TETON-MARIAS RIVERS								
er Pass	13615	6900	4	27N	114	1964	1, 2, 3, 4, 5	1
Lake	13420	5900	25	21N	114	1969	1, 2, 3, 4, 5	1
n Creek	12806	5700	33	21N	104	1968	1, 2, 3, 4, 5	1
-Bull	12809	5700	25	21N	104	1968	3, 4, 5	1
ght Creek	12801	6000	13	26N	104	1948	3, 4, 5	1
Mountain	12807	7000	20	22N	104	1934	3, 4, 5	1
ookhorn	12812	6400	18	25N	94	1969	1, 2, 3, 4, 5, 5 ¹ , 6	2
ookhorn	12812	6400	17	25N	94	1969	1, 2, 3, 4, 5, 5 ¹ , 6	2
8 Creek	12802	5700	31	25N	104	1949	3, 4, 5	2
8 Creek	12802	5700	31	25N	104	1949	3, 4, 5	2
8 Ridge	12803	6800	17	25N	104	1949	3, 4, 5	2

ITH RIVER									
Ancha	9002	7100	26	12N	12E	1966			1
Snoy	9005	7150	25	12N	12E	1971	3,4,5		
Cal Lake	9001	6100	19	12N	18E	1964	3,4,5		
Greok	9003	5600	8	12N	18E	1966	3,4,5		
Park	10026	8100	20	12N	9E	1963	1,2,3,4,5,5,6		

SOIL MOISTURE STATIONS

COLUMBIA RIVER BASIN

1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2423	2424	2425	2426	2427	2428	2429	2430	2431	2432	2433	2434	2435	2436	2437	2438	2439	2440	2441	2442	2443	2444	2445	2446	2447	2448	2449	2450	2451	2452	2453	2454	2455	2456	2457	2458	2459	2460	2461	2462	2463	2464	2465	2466	2467	2468	2469	2470	2471	2472	2473	2474	2475	2476	2477	2478	2479	2480	2481	2482	2483	2484	2485	2486	2487	2488	2489	2490	2491	2492	2493	2494	2495	2496	2497	2498	2499	2500	2501	2502	2503	2504	2505	2506	2507	2508	2509	2510	2511	2512	2513	2514	2515	2516	2517	2518	2519	2520	2521	2522	2523	2524	2525	2526	2527	2528	2529	2530	2531	2532	2533	2534	2535	2536	2537	2538	2539	2540	2541	2542	2543	2544	2545	2546	2547	2548	2549	2550	2551	2552	2553	2554	2555	2556	2557	2558	2559	2560	2561	2562	2563	2564	2565	2566	2567	2568	2569	2570	2571	2572	2573	2574	2575	2576	2577	2578	2579	2580	2581	2582	2583	2584	2585	2586	2587	2588	2589	2590	2591	2592	2593	2594	2595	2596	2597	2598	2599	2600	2601	2602	2603	2604	2605	2606	2607	2608	2609	2610	2611	2612	2613	2614	2615	2616	2617	2618	2619	2620	2621	2622	2623	2624	2625	2626	2627	2628	2629	2630	2631	2632	2633	2634	2635	2636	2637	2638	2639	2640	2641	2642	2643	2644	2645	2646	2647	2648	2649	2650	2651	2652	2653	2654	2655	2656	2657	2658	2659	2660	2661	2662	2663	2664	2665	2666	2667	2668	2669	2670	2671	2672	2673	2674	2675	2676	2677	2678	2679	2680	2681	2682	2683	2684	2685	2686	2687	2688	2689	2690	2691	2692	2693	2694	2695	2696	2697	2698	2699	2700	2701	2702	2703	2704	2705	2706	2707	2708	2709	2710	2711	2712	2713	2714	2715	2716	2717	2718	2719	2720	2721	2722	2723	2724	2725	2726	2727	2728	2729	2730	2731	2732	2733	2734	2735	2736	2737	2738	2739	2740	2741	2742	2743	2744	2745	2746	2747	2748	2749	2750	2751	2752	2753	2754	2755	2756	2757	2758	2759	2760	2761	2762	2763	2764	2765	2766	2767	2768	2769	2770	2771	2772	2773	2774	2775	2776	2777	2778	2779	2780	2781	2782	2783	2784	2785	2786	2787	2788	2789	2790	2791	2792	2793	2794	2795	2796	2797	2798	2799	2800	2801	2802	2803	2804	2805	2806	2807	2808	2809	2810	2811	2812	2813	2814	2815	2816	2817	2818	2819	2820	2821	2822	2823	2824	2825	2826	2827	2828	2829	2830	2831	2832	2833	2834	2835	2836	2837	2838	2839	2840	2841	2842	2843	2844	2845	2846	2847	2848	2849	2850	2851	2852	2853	2854	2855	2856	2857	2858	2859	2860	2861	2862	2863	2864	2865	2866	2867	2868	2869	2870	2871	2872	2873	2874	2875	2876	2877	2878	2879	2880	2881	2882	2883	2884	2885	2886	2887	2888	2889	2890	2891	2892	2893	2894	2895	2896	2897	2898	2899	2900	2901	2902	2903	2904	2905	2906	2907	2908	2909	2910	2911	2912	2913	2914	2915	2916	2917	2918	2919	2920	2921	2922	2923	2924	2925	2926	2927	2928	2929	2930	2931	2932	2933	2934	2935	2936	2937	2938	2939	2940	2941	2942	2943	2944	2945	2946	2947	2948	2949	2950	2951	2952	2953	2954	2955	2956	2957	2958	2959	2960	2961	2962	2963	2964	2965	2966	2967	2968	2969	2970	2971	2972	2973	2974	2975	2976	2977	2978	2979	2980	2981	2982	2983	2984	2985	2986	2987	2988	2989	2990	2991	2992	2993	2994	2995	2996	2997	2998	2999	3000	3001	3002	3003	3004	3005	3006	3007	3008	3009	3010	3011	3012	3013	3014	3015	3016	3017	3018	3019	3020	3021	3022	3023	3024	3025	3026	3027	3028	3029	3030	3031	3032	3033	3034	3035	3036	3037	3038	3039	3040	3041	3042	3043	3044	3045	3046	3047	3048	3049	3050	3051	3052	3053	3054	3055	3056	3057	3058	3059	3060	3061	3062	3063	3064	3065	3066	3067	3068	3069	3070	3071	3072	3073	3074	3075	3076	3077	3078	3079	3080	3081	3082	3083	3084	3085	3086	3087	3088	3089	3090	3091	3092	3093	3094	3095	3096	3097	3098	3099	3100	3101	3102	3103	3104	3105	3106	3107	3108	3109	3110	3111	3112	3113	3114	3115	3116	3117	3118	3119	3120	3121	3122	3123	3124	3125	3126	3127	3128	3129	3130	3131	3132	3133	3134	3135	3136	3137	3138	3139	3140	3141	3142	3143	3144	3145	3146	3147	3148	3149	3150	3151	3152	3153	3154	3155	3156	3157	3158	3159	3160	3161	3162	3163	3164	3165	3166	3167	3168	3169	3170	3171	3172	3173	3174	3175	3176	3177	3178	3179	3180	3181	3182	3183	3184	3185	3186	3187	3188	3189	3190	3191	3192	3193	3194	3195	3196	3197	3198	3199	3200	3201	3202	3203	3204	3205	3206	3207	3208	3209	3210	3211	3212	3213	3214	3215	3216	3217	3218	3219	3220	3221	3222	3223	3224	3225	3226	3227	3228	3229	3230	3231	3232	3233	3234	3235	3236	3237	3238	3239	3240	3241	3242	3243	3244	3245	3246	3247	3248	3249	3250	3251	3252	3253	3254	3255	3256	3257	3258	3259	3260	3261	3262	3263	3264	3265	3266	3267	3268	3269	3270	3271	3272	3273	3274	3275	3276	3277	3278	3279	3280	3281	3282	3283	3284	3285	3286	3287	3288	3289	3290	3291	3292	3293	3294	3295	3296	3297	3298	3299	3300	3301	3302	3303	3304	3305	3306	3307	3308	3309	3310	3311	3312	3313	3314	3315	3316	3317	3318	3319	3320	3321	3322	3323	3324	3325	3326	3327	3328	3329	3330	3331	3332	3333	3334	3335	3336	3337	3338	3339	334
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Ch Falls	10014	7350	3	55	6E	1963	1, 2, 3, 4, 5, 3, 6	1
er Basin	11009	8150	9	65	3E	1965	1, 2, 3, 4, 5, 3, 6	1
lder Bowl	10015	7250	25	18	6E	1965	1, 2, 3, 4, 5, 3, 6	1
lin Slide	10066	8100	18	105	4E	1967	1, 2, 3, 4, 5, 3, 6	2
nd Meadow	10053	6600	22	45	6E	1965	1, 2, 3, 4, 5, 3, 6	1
rk Creek	10013	6860	10	65	3E	1964	1, 2, 3, 4, 5, 3, 6	1
rk Creek	10010	7400	22	65	3E	1963	3, 4, 5	1
rk Creek	10014	7400	22	65	3E	1963	3, 4, 5	1

[illegible][illegible]

4-TETON-MARIAS RIVERS					1955	1,2,3,4,5
er Pass	13415	6900	4	27N	114	1964
Lake	13420	5900	25	21N	104	1969
n Creek	12806	5700	33	21N	104	1,2,3,4,5
-Bull	12809	5700	25	21N	104	1,2,3,4,5
ght Creek	12801	6000	13	26N	104	1948
Mountain	12807	7000	20	22N	104	1934
ookhorn	12812	6400	18	23N	94	1969
ookhorn	12813	6700	17	23N	94	1,2,3,4,5,51,6
8 Creek	12802	5700	32	25N	104	1969
8 Creek	12803	6800	17	25N	104	1949
8 Ridge	12803	6800	17	25N	104	1,2,3,4,5

ITH RIVER									
Ancha	9002	7100	26	12N	12E	1966			1
Snoy	9005	7150	25	12N	12E	1971	3,4,5		
Cal Lake	9001	6100	19	12N	18E	1964	3,4,5		
Greok	9003	5600	8	12N	18E	1966	3,4,5		
Park	10026	8100	20	12N	9E	1963	1,2,3,4,5,5,6		

MISSOURI RIVER BASIN

MISSOURI RIVER MAIN STEM									
10B03	5100	10	19N	9E	1974				
10C01	9550	1	9N	3E	1963				1, 12
10D01	9550	1	9N	3E	1963				1, 12
10E01	9550	1	9N	3E	1963				1, 12
10F01	9550	1	9N	3E	1963				1, 12
10G01	9550	1	9N	3E	1963				1, 12
10H01	9550	1	9N	3E	1963				1, 12
10I01	9550	1	9N	3E	1963				1, 12
10J01	9550	1	9N	3E	1963				1, 12
10K01	9550	1	9N	3E	1963				1, 12
10L01	9550	1	9N	3E	1963				1, 12
10M01	9550	1	9N	3E	1963				1, 12
10N01	9550	1	9N	3E	1963				1, 12
10O01	9550	1	9N	3E	1963				1, 12
10P01	9550	1	9N	3E	1963				1, 12
10Q01	9550	1	9N	3E	1963				1, 12
10R01	9550	1	9N	3E	1963				1, 12
10S01	9550	1	9N	3E	1963				1, 12
10T01	9550	1	9N	3E	1963				1, 12
10U01	9550	1	9N	3E	1963				1, 12
10V01	9550	1	9N	3E	1963				1, 12
10W01	9550	1	9N	3E	1963				1, 12
10X01	9550	1	9N	3E	1963				1, 12
10Y01	9550	1	9N	3E	1963				1, 12
10Z01	9550	1	9N	3E	1963				1, 12
10A02	9550	1	9N	3E	1963				1, 12
10B02	9550	1	9N	3E	1963				1, 12
10C02	9550	1	9N	3E	1963				1, 12
10D02	9550	1	9N	3E	1963				1, 12
10E02	9550	1	9N	3E	1963				1, 12
10F02	9550	1	9N	3E	1963				1, 12
10G02	9550	1	9N	3E	1963				1, 12
10H02	9550	1	9N	3E	1963				1, 12
10I02	9550	1	9N	3E	1963				1, 12
10J02	9550	1	9N	3E	1963				1, 12
10K02	9550	1	9N	3E	1963				1, 12
10L02	9550	1	9N	3E	1963				1, 12
10M02	9550	1	9N	3E	1963				1, 12
10N02	9550	1	9N	3E	1963				1, 12
10O02	9550	1	9N	3E	1963				1, 12
10P02	9550	1	9N	3E	1963				1, 12
10Q02	9550	1	9N	3E	1963				1, 12
10R02	9550	1	9N	3E	1963				1, 12
10S02	9550	1	9N	3E	1963				1, 12
10T02	9550	1	9N	3E	1963				1, 12
10U02	9550	1	9N	3E	1963				1, 12
10V02	9550	1	9N	3E	1963				1, 12
10W02	9550	1	9N	3E	1963				1, 12
10X02	9550	1	9N	3E	1963				1, 12
10Y02	9550	1	9N	3E	1963				1, 12
10Z02	9550	1	9N	3E	1963				1, 12
10A03	9550	1	9N	3E	1963				1, 12

4-TETON-MARIAS RIVERS					1955	1,2,3,4,5
er Pass	13415	6900	4	27N	114	1964
Lake	13420	5900	25	21N	104	1969
n Creek	12806	5700	33	21N	104	1,2,3,4,5
-Bull	12809	5700	25	21N	104	1,2,3,4,5
ght Creek	12801	6000	13	26N	104	1948
Mountain	12807	7000	20	22N	104	1934
ookhorn	12812	6400	18	23N	94	1969
ookhorn	12813	6700	17	23N	94	1,2,3,4,5,51,6
8 Creek	12802	5700	32	25N	104	1969
8 Creek	12803	6800	17	25N	104	1949
8 Ridge	12803	6800	17	25N	104	1,2,3,4,5

ITH RIVER									
Ancha	9002	7100	26	12N	12E	1966			1
Snoy	9005	7150	25	12N	12E	1971	3,4,5		
Cal Lake	9001	6100	19	12N	18E	1964	3,4,5		
Greok	9003	5600	8	12N	18E	1966	3,4,5		
Park	10026	8100	20	12N	9E	1963	1,2,3,4,5,5,6		

LEGEND

1/ Numerals 1,2,3,4,5,6 refer to January 1, February 1, March 1, April 1, May 1, May 15, and June 1.

2/ Numerals refer to Agency making the snow surveys as follows:

1. Soil Conservation Service
2. U.S. Army Corps of Engineers

1. Soil Conservation Service
2. Forest Service
3. Geological Survey
4. Montana Power Company
5. Bureau of Indian Affairs
6. National Park Service
7. MSU Agricultural Experiment Station
8. U. of M. School of Forestry
9. Department of Energy, Mines and Resources
10. Bureau of Sports Fisheries and Wildlife
11. Private Cooperator
12. Montana Conservation Districts
13. Montana Department of Fish and Game

Agencies and Organizations Cooperating in Montana Snow Surveys

GOVERNMENT AGENCIES

Canada:

Water Survey of Canada, Calgary, Department of the
Environment
Water Resources Service, Department of Lands, Forests
and Water Resources, British Columbia

Federal:

Department of the Army
Corps of Engineers
U.S. Department of Agriculture
Forest Service
Soil Conservation Service
U.S. Department of Commerce
NOAA, National Weather Service
U.S. Department of the Interior
Bonneville Power Administration
Bureau of Indian Affairs
Bureau of Reclamation
Bureau of Sports Fisheries and Wildlife
Geological Survey
National Park Service

STATE

Montana Association of Conservation Districts
Montana Department of Fish and Game
Montana Department of Natural Resources and
Conservation
Montana Water Resources Board
Montana State University - Agricultural Experiment
Station
North Montana Branch Station - Agricultural Exper-
iment Station
University of Montana - School of Forestry

PRIVATE

Montana Power Company

Other organizations and individuals furnish valuable
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is gratefully acknowledged.

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